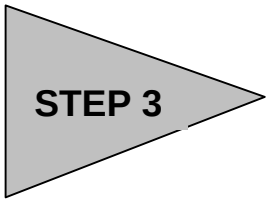
Step 3: Generating and Using the Extract Error Report



As step 3 in the NSLDS update process, you generate an Extract Error report and use it to correct domain and missing identifier errors. Reviewing the reports will give you a head start on fixing your database or extract procedures so such errors do not recur in subsequent Extract files. You will use the same process to identify load process errors after your data is processed by NSLDS.

The Extract Error File

The Extract Error file is one of the outputs from the Extract Validation performed by DataPrep. From this file, you can generate a report that can be viewed on screen or printed using the viewer software you designated. DataPrep will give you the option of generating a summary or a detail error report. In addition, you can sort the errors by any of several criteria, including error code, field code, SSN, data provider identifier, or student's name.

To create an Extract Error report, click Error Report on the DataPrep Main Menu.

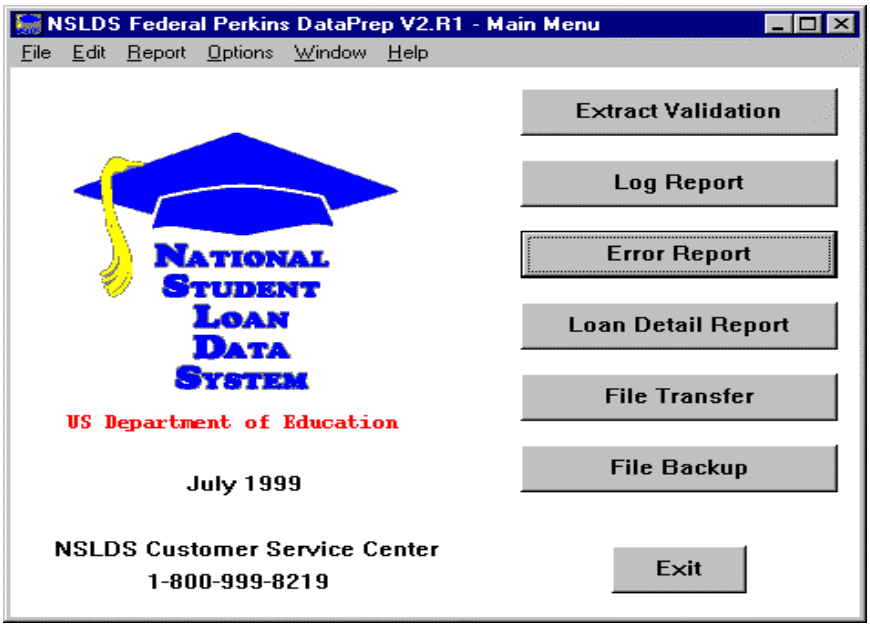


Figure 1, DataPrep Main Menu with Error Report Selected

Correcting Your Database
Use the Extract Error Report to fix your institution's databases or extract procedures. *Do not make corrections by changing the Extract file as the errors will reappear the next time you create an Extract file.*

The Error Reports dialog box will then appear:

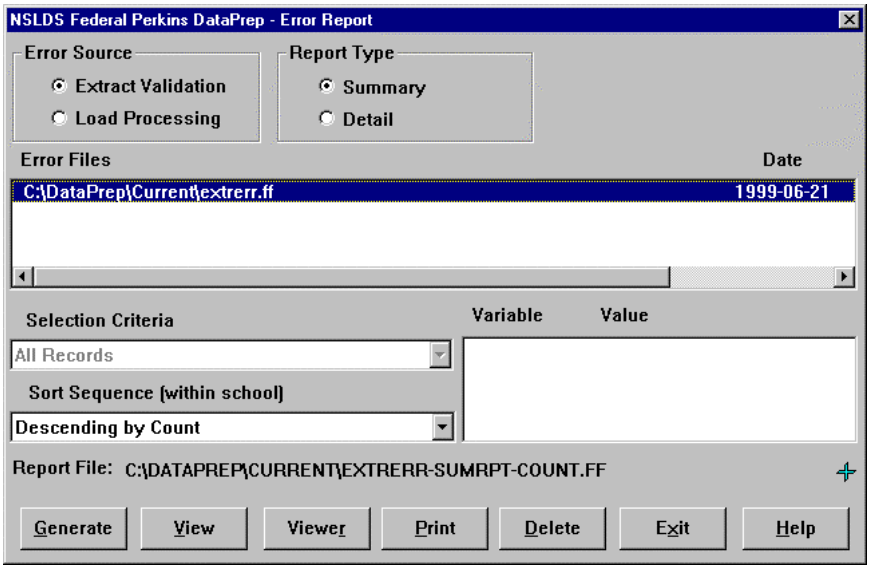


Figure 2, Error Reports Dialog Box

You must first highlight the error file from which you want to generate a report. You will then have the option of generating either a Detail Report or a Summary Report.

You can scroll to the right to see more information about the file. When you double-click the highlighted file, a File Information message box will appear showing you the date and time the file was last modified and the number of bytes in the file.

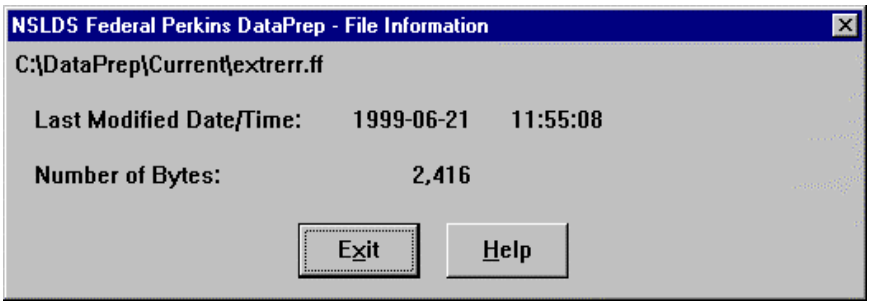


Figure 3, File Information Message Box

Summary Report or Detail Report

You have the option of generating either a Summary Report or a Detail Report. There are different sorting options for each. In addition, for Detail Reports, you can select by various criteria.

Extract Error Report or Submittal File Error Report
The Error Report screen allows you to generate either an Extract Error Report from your Validated Extract file or a Load Level Error Report that resulted from the Submittal file you sent to NSLDS. Be sure to specify from which Error Source you want to generate a report.

Extract Error Reports for Concatenated Files
DataPrep sequentially reads a concatenated Extract file and produces a single file with information for each set of data concatenated together. Therefore, an Extract Error Report will be produced for School 1 followed by School 2's error report, then School 3's. This allows a school or servicer to split up the file so that the originating school or branch can make the required corrections.

The Extract Error Report generation process for concatenated files is identical to the process for single schools.

Selection Criteria

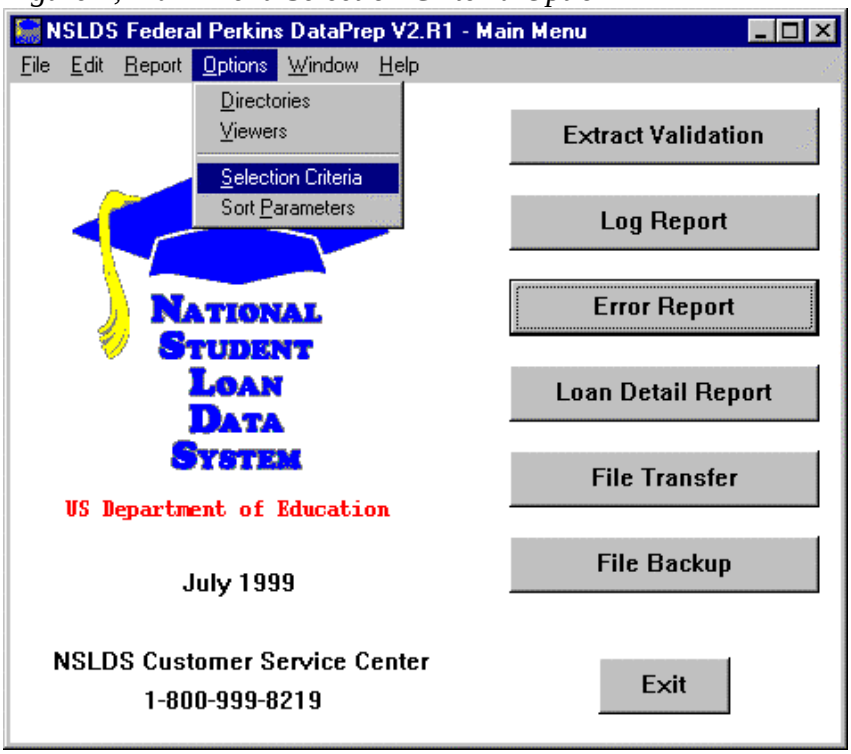
In addition to different sorting options, you also have the option of generating a variety of Detail Reports using different selection criteria. Within these reports, you can vary the sorting criteria. Several selection options have been preprogrammed:

- Data Fields in Error
- Identifier Fields in Error
- New Identifier Fields in Error
- No SSN Conflict Records
- Only SSN Conflict Records
- Selected Error Code
- Selected Error and Field Code
- Selected Field Code

Updating Selection Criteria

DataPrep allows you to add new selection criteria, and to change or delete existing selection criteria. To update selection criteria, select "Selection Criteria" under Options in the main menu:

Figure 4, Main Menu Selection Criteria Option



The following dialog box will appear:

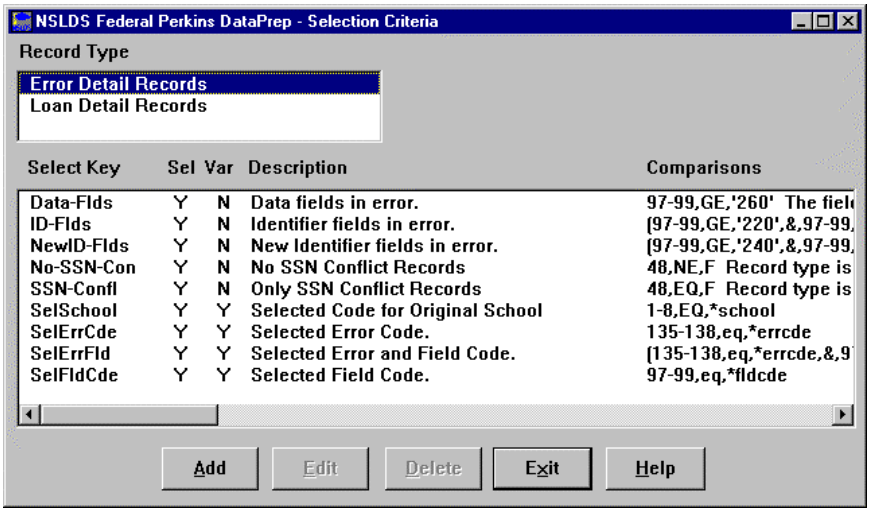


Figure 5, Selection Criteria Dialog Box

From this screen you can Add, Edit, or Delete any selection criteria for the Detail Extract Error report, Load Level Error Report, or Loan Detail Report. Click on Error Detail or Loan Detail to add, edit, or delete selection criteria for that report type.

Adding Selection Criteria

To create a new selection criteria, select “Add,” and the following dialog box will appear:

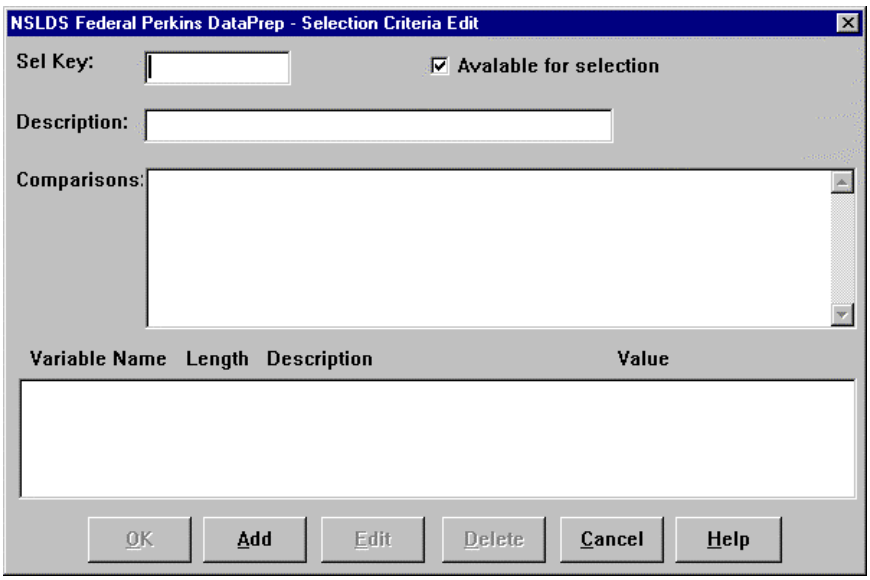


Figure 6, Selection Criteria Edit Dialog Box

Steps to Add Selection Criteria

Step 1: Enter the Sel Key

(Up to 10 characters that names the selection criteria—generally includes the field name, e.g. if you want to select for all loan status in repayment, e.g. "LoanStatRP.")

Step 2: Enter the Description

(Up to 35 characters that describe the selection criteria. This is what will appear in a drop down list on the report dialog box when you go to run a report, e.g. "Loan Status in Repayment.")

Step 3: Enter the Comparisons

(The codes that specify which records are to be included in the specified report. Put in the position of the field, then the appropriate comparison, such as equal to, greater than, or less than, then the value. See examples and Syntax.)

Use of Spaces
Do not insert any spaces after position numbers. If you do, the program will assume the sort parameter you've specified has ended. If you wish to add any comments (e.g. additional description) you can put comments after a space.

Example 1: One Criterion

To add a selection criteria for all loans with loan status in repayment:

Sel Key = LoanStatRP,
Description = Loan Status in Repayment,
Comparison = 119-120,EQ,RP.

Note: Loan Status is position 119-120

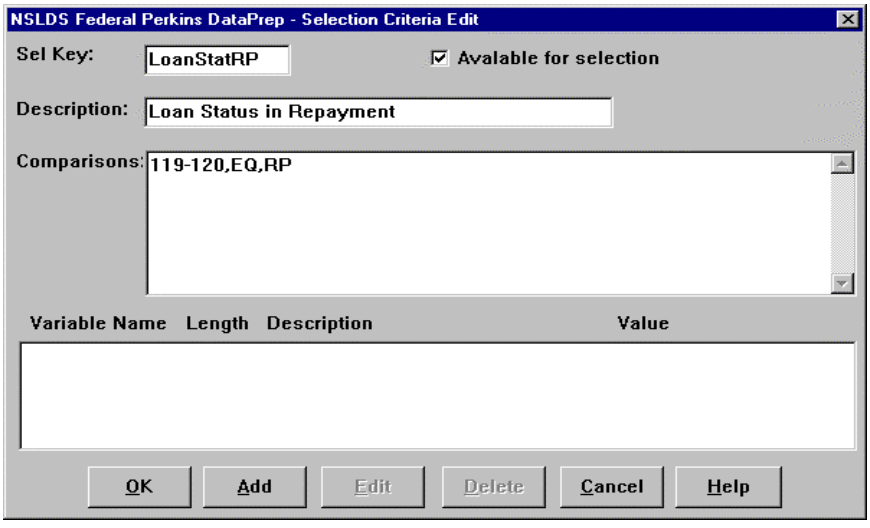


Figure 7, Selection Criteria Edit Screen

Example 2: Two Criteria

To add selection criteria for all loans with loan status in repayment AND a date of first disbursement after January 1, 1998:

Sel Key = RP-Jan1998
Description = Loan in RP and Disbursement>= Jan 1998
Comparison = (119-120,EQ,RP,&,40-47,GE,'19980101')

Notes: 119-120 is Loan Status position, 40-47 is Date of First Disbursement position, & is AND connector, GE is greater than or equal to. You must use parentheses when including an & sign.

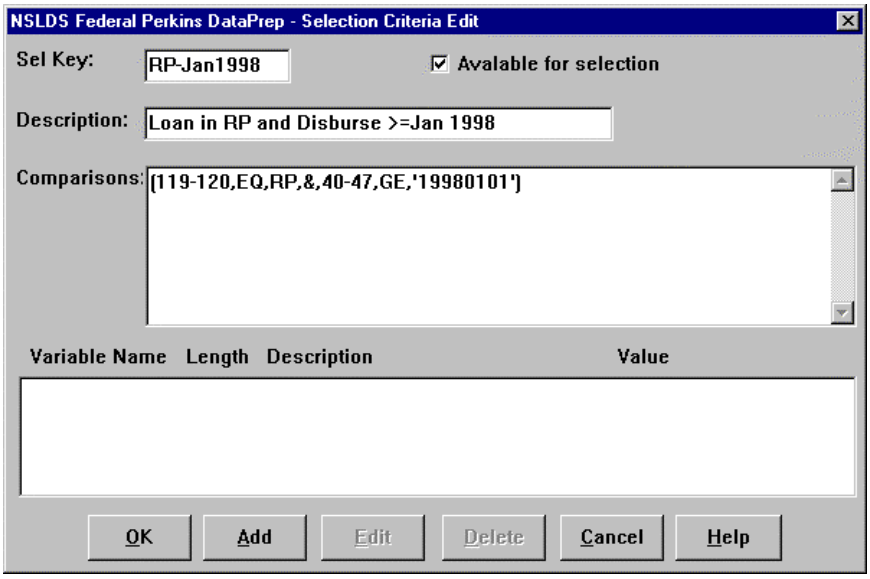


Figure 8, Selection Criteria Edit Screen

Steps to Add Selection Variable

If you want to add a variable selection criterion, from the selection variable dialog box, select "Add" and then follow these steps:

Step 1: Enter the Name
(Up to 10 characters that names the variable.)

Step 2: Enter the Length of the Field
(The length must be equal to the length of the Data Element that the Selection Variable Value is to be compared with.)

Step 3: Enter a Description of the Variable
(Up to 35 characters that describe the variable.)

Step 4: Enter the Value
(The initial value of the Selection Variable. Must match the possible values in the record, e.g. 'RP'.)

Step 4: If using a variable, select "Add" and the following dialog box will appear:

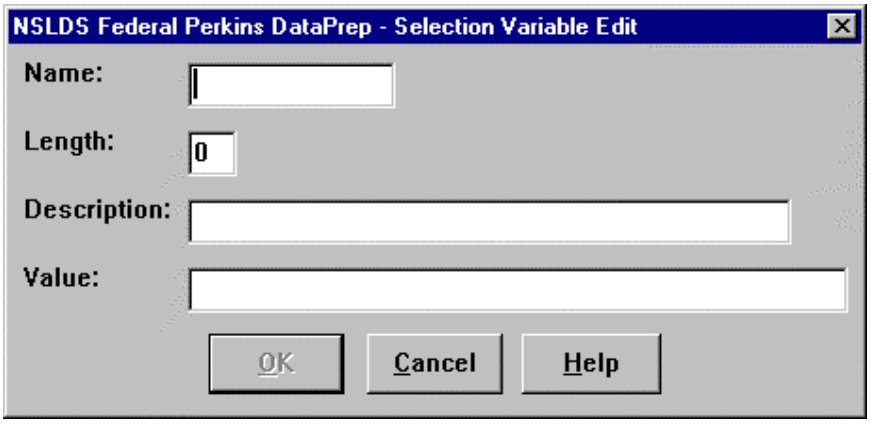


Figure 9, Selection Variable Edit Dialog Box

Adding a Variable Criterion
To create a report with a criterion that varies each time you run the report, you use the Selection Criteria Edit Screen and complete the upper portion. When adding the variable, select "Add" and the appropriate dialog box will appear.

Example 3: A Variable Criterion

To add a selection criterion for all loans with a loan status equal to the variable value that you set each time you run a report:

Sel Key = SelLoanSt
Description = Selected Loan Status
Comparison = 119-120,EQ,*LoanStat

> Notes: 119-120 is Loan Status position, EQ is equal to, and * indicates the variable you will set when you select the specific report (e.g. RP, FB, etc.).

To add the variable, click on the "Add" button to bring up the Selection Variable Edit dialog box:

Name = LoanStat
Length = 2
Description = Loan Status Code
Value = 'RP'

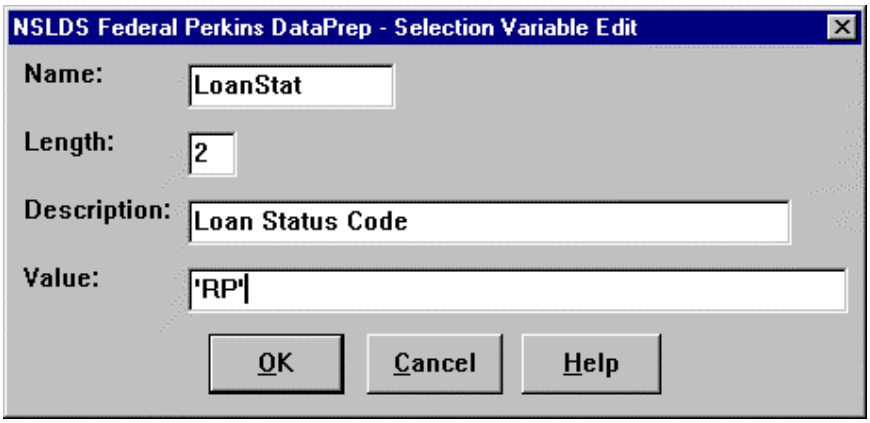


Figure 10, Selection Variable Edit Dialog Box

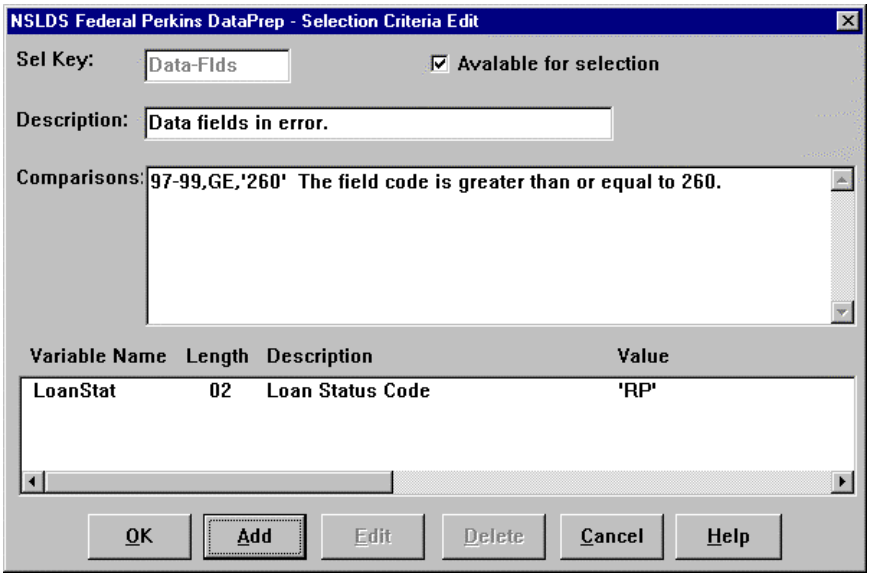


Figure 11, Selection Criteria Edit Dialog Box

For more information about adding, editing, and creating your own selection criteria, refer to the Help screens in the software and the Comparison Syntax that follows.

Selection Criteria Comparisons' Syntax

Comparisons

Comparisons are made up of one or more comparison parameters linked using the AND connector within commas (,&,) and the OR connector within commas (,|,), and grouped using parentheses ().

[(]comparison1[)][[,connector2,[(]comparison2[)]]…[,connectorN,[(]comparisonN[)]]][)]
[comments]

( ) pairs	Balanced pairs of parentheses that enclose comparison parameters in order to clarify or to alter the order in which the comparisons are done. {Without parentheses, the comparisons 'A,|,B,&,C,|,D' would be interpreted as '((A,|,B),&,C),|,D', but you will need to use parentheses if the intent is either '(A,|,B),&,(C,|,D)' or 'A,|,(B,&,C),|,D' or 'A,|,((B,&,C),|,D)'.}
comparison1	First comparison parameter.
connector2	Second compare parameter connector. (optional){Use ampersand (&) for the AND connector, and use bar (|) for the OR connector.}
comparison2	Second comparison parameter (optional)
connectorN	Nth compare parameter connector. (optional) {Use ampersand (&) for the AND connector, and use bar (|) for the OR connector.}
comparisonN	Nth comparison parameter. (optional)
comments	Comments. (optional){At least one space between last compare parameter and start of comments.}

Comparison Parameters

A comparison parameter is made up of one or more compare parameters linked using the AND connector within commas (,&,) and the OR connector within commas (,|,).

compare1[[,connector2,compare2]…[,connectorN,compareN]]

compare1	First compare parameter
connector2	Second compare parameter connector. (optional){Use ampersand (&) for the AND condition, and use bar (|) for the OR condition.}
compare2	Second compare parameter (optional)
connectorN	Nth compare parameter connector. (optional){Use ampersand (&) for the AND connector, and use bar (|) for the OR connector.}
compareN	Nth compare parameter (optional)

Compare Parameters

A compare parameter is made up of a record character position, a compare condition, and a compare value linked by commas (,).

compare => start[-end|:length|:1],condition,string|position|*variable

start	Data Element starting position. {A number from 1 to 640.}
end	Data Element ending position. (optional) {A number from starting position to 640.}
length	Data Element length. (optional) {A number from 1 to 1 + 300 - starting position. Defaults to a length of 1 when neither the ending position nor the length is given.}

condition — The code identifying the compare condition.
{One of the following two-character compare conditions — not case sensitive}
EQ = Equal to
NE = Not Equal to
GT = Greater than
GE = Greater than or Equal to
LT = Less than
LE = Less than or Equal to

string — The character sting that is to be compared with the Data Element.
{A string of characters whose length is equal to that of the Data Element.}

If a string's first character is a number or an asterisk (*), or its last character is a space, then the string must be enclosed in single quotation marks ('string').
When a quoted string is less than the length of the Data Element, the string is padded out to the correct length using the last character in the string. {You can use ' ' to check for spaces and '0' to check for zeroes.}
If you wish to include a single quote (') in the comparison string, then you will need to enter two single quotes (").

position — The starting position of a second Data Element within the record that is to be compared with the first Data Element.
{A number from 1 to 1 + 300 - length of Data Element.}

variable — The variable name that is replaced with a value at report generation time.
{The variable name must be prefixed with an asterisk (*) and defined in the Variable Name list.}

Examples

Example 1: 105-110,gt,'0' Amount of Loan is greater than zero.

Example 2: (58-66,NE,' ',&,58-66,NE,4) New SSN is not spaces, and it is not equal to current SSN.

Example 3: 9-17,eq,*ssn Student SSN is equal to the variable value.

Sorting Options

The Summary report can be sorted by count, error code, or field code. The Detail report, however, can be sorted by any criterion you select. Sorting allows you to either focus on specific types of errors or distribute sections as appropriate. DataPrep has provided preprogrammed sorting options:

- Data Provider Loan Identifier
- Error Code
- Field Code
- Student's Name, or
- Student's SSN.

For the Detail report you can also select No Sort, which means the records in the report will be listed in the same order as the file from which it was generated.

Sorting the Extract Error Report
The Extract Summary Report can only be sorted by count, error code, or field code while the Detail report can also be sorted by any criteria you choose. DataPrep has provided preprogrammed sorting options for data provider loan identifier, error code, field code, and student's name or SSN.

When sorting by count (summary report only), the report will be in descending order with the field with the largest number of errors appearing first.

If you select No Sort (detail report only), the report will be sorted in the same order as the file from which it was created (i.e., your Database Extract file).

Updating Sort Options

DataPrep allows you to create new sorting options, and to change or delete existing sort options. To update sort options, choose "Sort Parameters" under "Options" in the main menu:

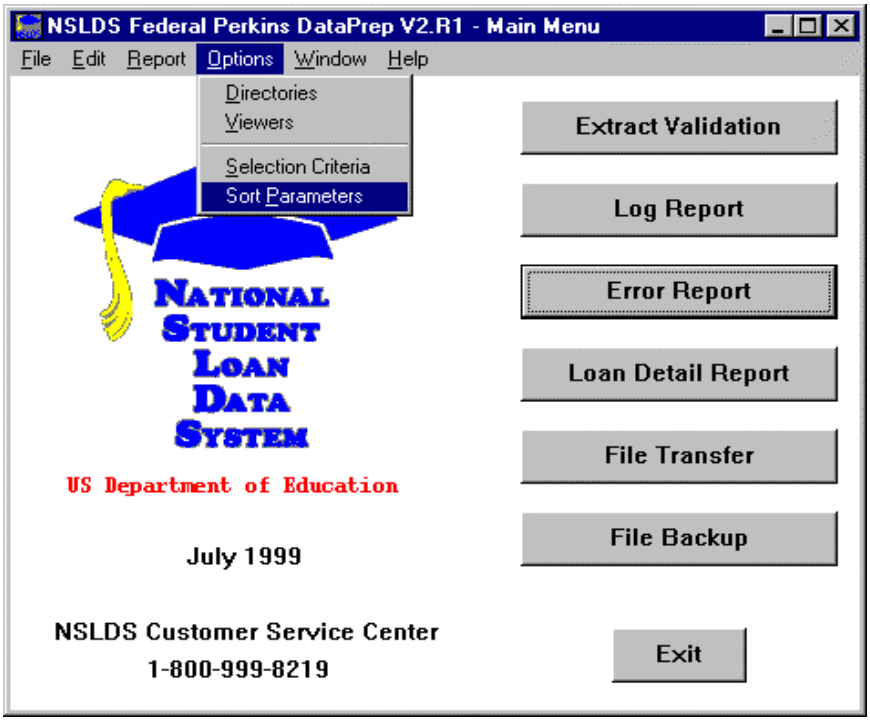


Figure 12, Main Menu Sort Parameter Option

The following dialog box will appear:

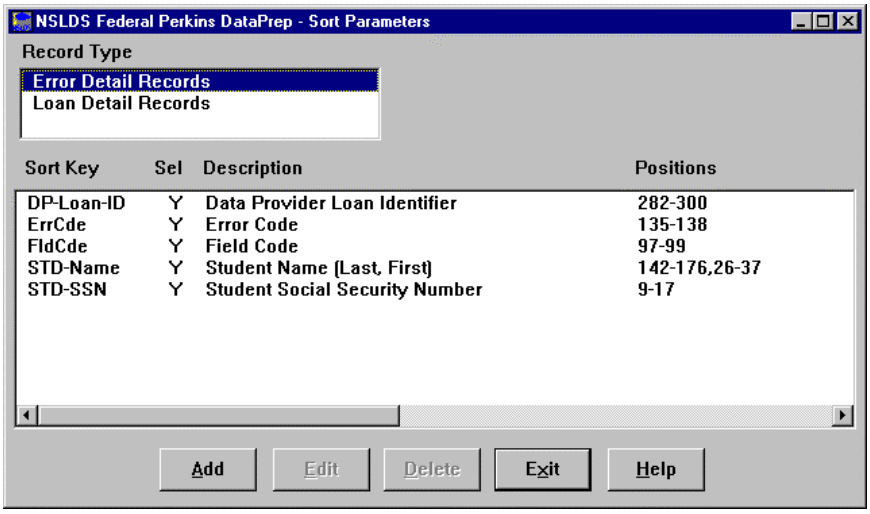


Figure 13, Sort Parameters Dialog Box

From this screen you can Add, Edit, or Delete any sort options for the Detail Extract Error report, Load Level Error Report, or Loan Detail Report. Click on Error Detail or Loan Detail to add, edit, or delete sort options for that report type.

To create a new sort option, select "Add," and the following dialog box will appear:

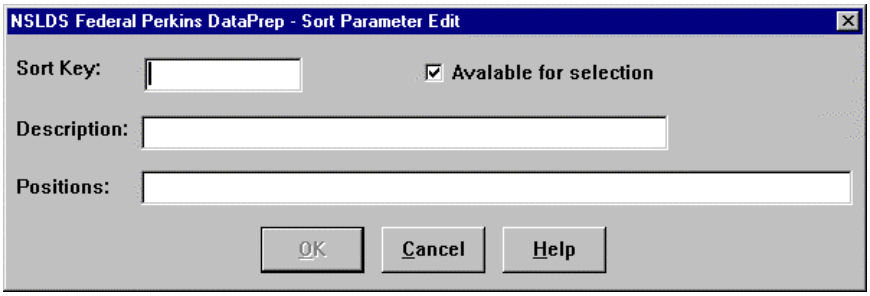


Figure 14, Sort Parameter Edit Dialog Box

Steps to Add Sort Parameters

Step 1: Enter the Sort Key
(Up to 10 characters that name the report — generally the field name, e.g. "Field Code.")

Step 2: Enter the Description
(Up to 35 characters that describe the sort sequence. This will appear in the drop down list on the report dialog box.)

Step 3: Enter the Positions
(Up to 60 characters that define the positions in the record by which the report will sort. Use commas between fields).

Example:

If you want to have a report that sorts by Loan Type and Social Security Number,

Step 1: Enter "Type-SSN" in Sort Key box.

Step 2: Enter Loan Type & SSN in Description box.

Step 3: Enter 38-39,9-17 in Positions box.

Step 4: Press "OK."

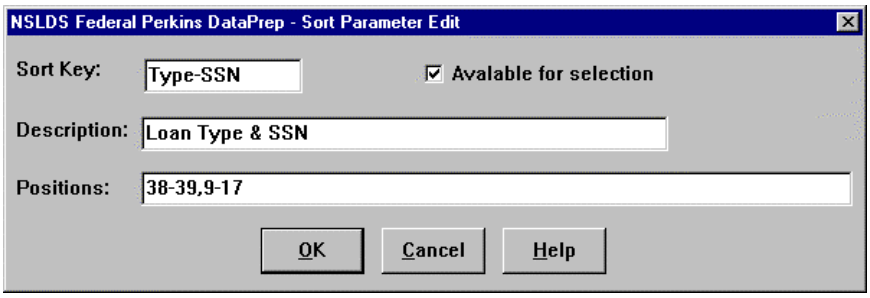


Figure 15, Sort Parameter Edit Dialog Box

Use of Spaces
Do not insert any spaces after position numbers. If you do, the program will assume the sort parameter you've specified has ended. If you wish to add any comments (e.g. additional description) you can put comments after a space.

Selection Flag Box
Check the "Available for Selection" box if you want the new Sort Parameter to be listed in the sort sequence drop down list on the report dialog box.

When you view the Sort Parameters Dialog Box, you'll see:

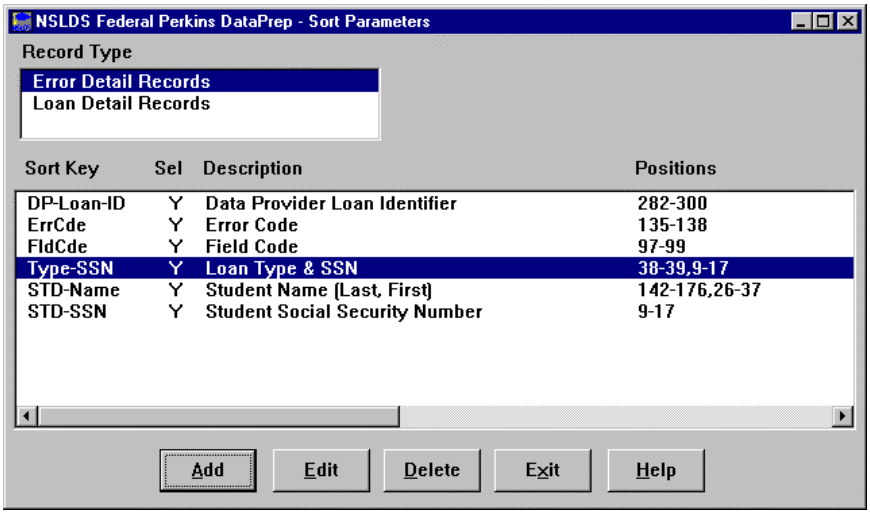


Figure 16, Sort Parameter Edit Dialog Box

This sort parameter will now be listed in the sort sequence options in the Error report dialog box.

Error Reports

After you've selected the selection criteria and sort option and selected Generate, the report will be created and the Error Report message box will appear.

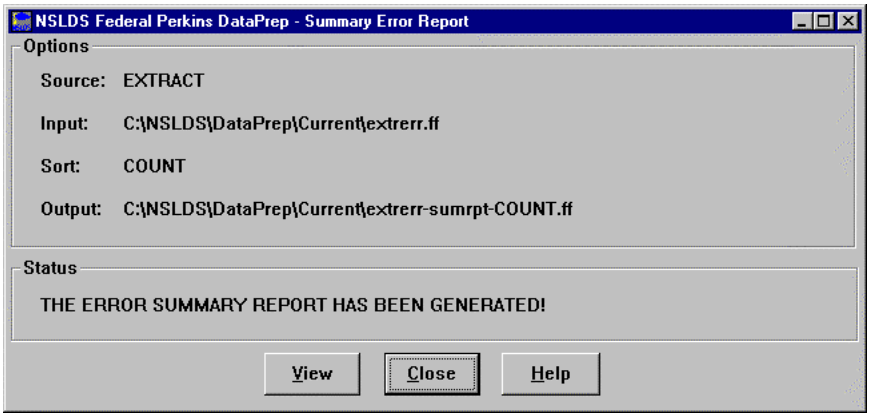


Figure 17, Summary Error Report Message Box

Once the Error Report is generated, you have the option of viewing or printing it using either the viewer program you designated during setup or by selecting a different viewer.

Viewers
Remember that the DataPrep default viewer (NSLDS-V2/ota.exe) produces a correctly formatted report while the other viewers may not. If you use one of the other viewers to view or print a report, you may have to either adjust the font and size to fit on a page or print your report using landscape rather than portrait format.

Generating Error Reports for Mainframes (OS/390 LE-Based Users)

The JCL for mainframes (OS/390 LE-based users) performs both Extract Validation and Error file generation (see Appendix G).

After Extract Validation is complete, the program will produce the Extract Error file from which Summary and Detail Error reports are generated.

Main Frame Users: Extract Report Sorting
The Summary Extract Error Report for mainframes can be sorted by count, error code, and field code. However, the Detail Extract Error Report for mainframes is ONLY sorted by social security number.

Summary Report Sorting

There are three options for sorting the Summary report: error count, error code, and field code. The JCL provided specifies that the report will be sorted by error count. If you want to change this default, you must change the JCL (see Appendix G). You do so by adding an asterisk (*) after the two slashes in the JCL line:

```
//          SET SORTPARM=PUTB4001
```

and deleting the asterisk in the JCL line that specifies the sort option you wish to use.

Change either:

```
//*         SET SORTPARM=PUTB4002
```

or

```
//*         SET SORTPARM=PUTB4003
```

Detail Report Sorting

The Detail report is automatically sorted by SSN within school. This is the only sorting option available in Detail Error reporting.

If do not wish to automatically produce an Extract Detail Error Report, you must change the JCL (see Appendix G).

Using the Extract Summary Error Report

The Extract Summary Error Report lists the number of errors that occurred for each field, the percentage those errors represent of the total number of errors in the file, the error code, field name, and error message explaining what is in error.

The Summary report is a tool you can use to help you quickly spot problem areas in either your Database Extract file or the Extract Validation process.

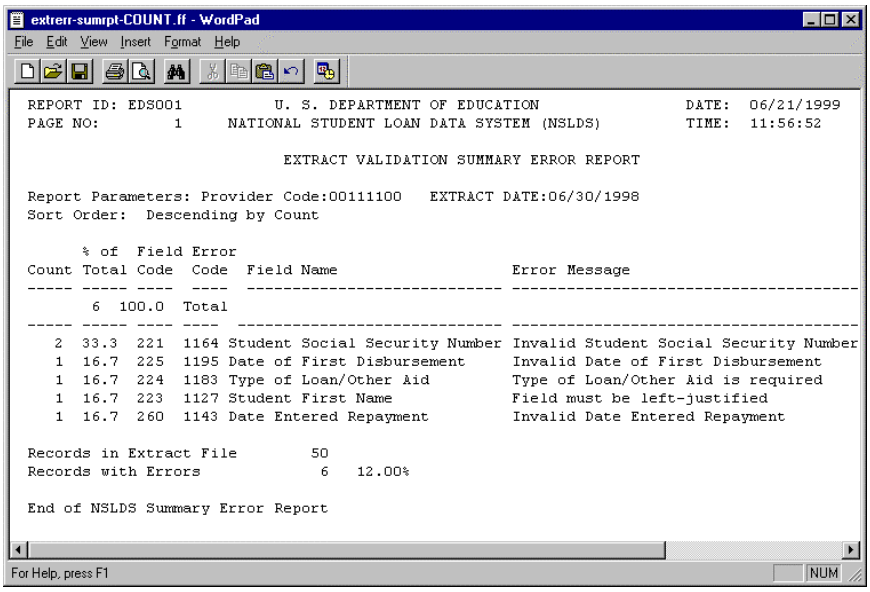


Figure 18, Sample Summary Extract Error Report–No Sort

Using the Extract Summary Error Report
You can use the Summary report to focus quickly on the types of errors that have occurred.

If a large portion of your errors come from the DOB field, for example, that will show up in the summary report. You can then generate a detail report to show individual records that will need to be corrected.

Using the Extract Detail Error Report

The Extract Validation Detail Error Report identifies each of the errors in your Database Extract file. You should use this report as a guide to correct your Database Extract file or extract procedures.

Appendix D contains a detailed list of all error messages, a cross-reference to the fields to which they refer, and the error message associated with each edit applied against a data element. You can also refer to the Field Code and use Appendix A to review the requirements for reporting on the specific field.

> **Note:** It is essential that you *correct your database* rather than just correct the Database Extract file. Otherwise, the errors will reappear in the next processing cycle, and your data will be out of sync with NSLDS.

View the Extract Summary Error Report First
We suggest that you generate and view a Summary Error Report before viewing a Detail Report. The summary will give you the numbers of the types of errors in your Extract file, making it easy for you to spot large problems.

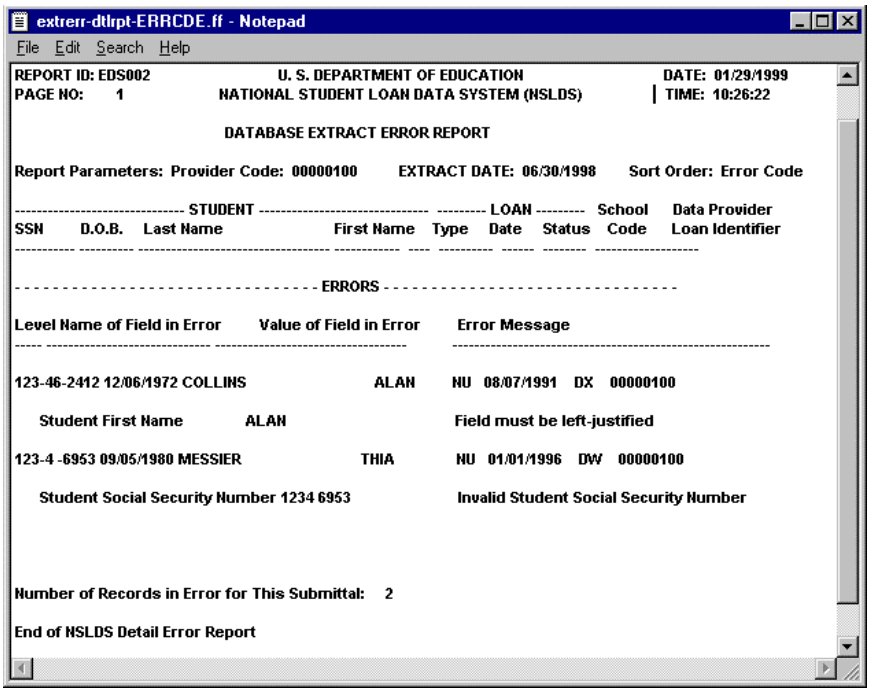


Figure 19, Sample Detail Extract Error Report–Error Code Sort

Domain—Level Errors

There are four types of domain-level errors that you must correct in your database before DataPrep will create a Submittal file:

1. Numeric Field Error
2. Invalid Date Error
3. Missing Identifier
4. Missing New Identifier

Numeric Field Error

A numeric field error occurs when a field requiring all numeric characters is populated by some other character or space. This type of domain error may indicate extraction of the wrong data, an incorrect result in a calculated field, truncated data, incorrect field length, or another type of data problem. The Extract Error Reports will identify the data that erred and you can use either the Summary Report or the Detail Report to identify the data in your system needing correction or trace back the source of the corruption. You can also review the loan record using the Loan Detail Report option on DataPrep to review the whole record.

Invalid Date Error

An invalid date error occurs when an invalid date appears in a field requiring a date. This may be caused by an incorrect character in the date field (e.g., a non-numeric character) or if the date is not a calendar date (e.g., 1998-02-30—

February 30th is not a valid date). An invalid date error will *not* occur if the date is valid, regardless of whether or not it is reasonable (e.g., a student date of birth of 1998-02-28 will pass this domain-level edit, although clearly 1998 is not a reasonable date for a current student. That record-level error will occur later when NSLDS tries to load the data).

You should note that a date field with all zeros will pass the domain edit, but may err in the load process if a date is required.

Missing Identifier

Identifier errors occur when one or more loan or student identifier field is left unpopulated. Examples of identifier errors are Loan Type with spaces or birth date with zeros. These create a loan record with an invalid format loan record. Identifier errors often occur either when there is missing data in your database or when your extract process is not properly working. It is essential you review the cause of this error so it does not continue to occur.

Missing New Identifier

New Identifier errors occur when one or more of the loan or student new identifiers is populated by valid data, but the remaining new loan- or student-identifiers are not. This occurs if you try to perform an Identifier change but fail to fill in all of the New Identifiers. New identifier errors indicate an identifier change process that is not occurring properly so it is essential you review the cause of the error.

Reviewing the Extract File

If you wish, you can review the contents of your Extract file using the Loan Detail Report option on the DataPrep Main Menu. This will allow you to review the file field by field. Begin by clicking Loan Detail Report on the DataPrep Main Menu.

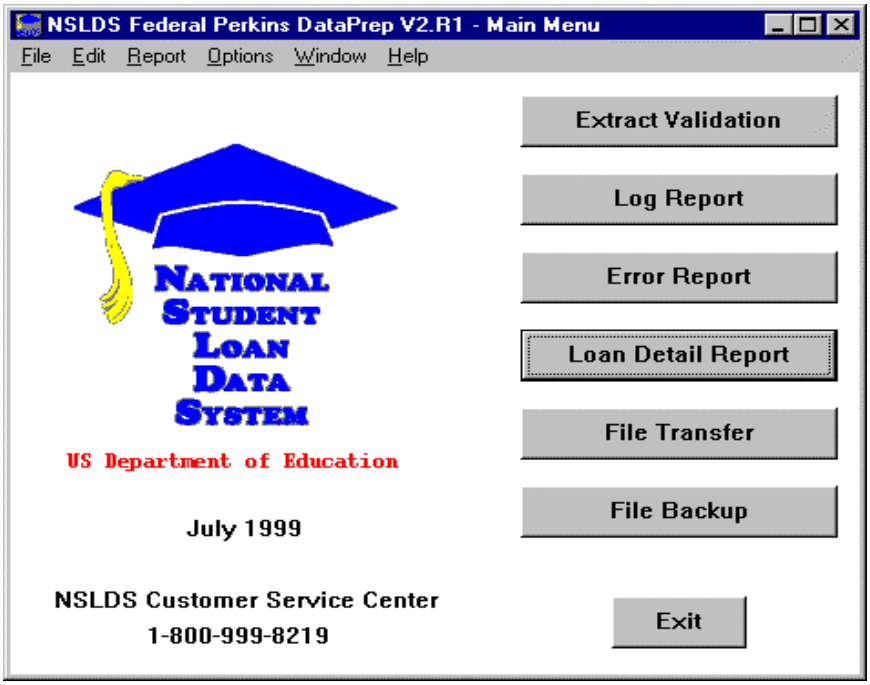


Figure 20, DataPrep Main Menu with Loan Detail Report Selected

The Loan Detail Reports dialog box will appear.

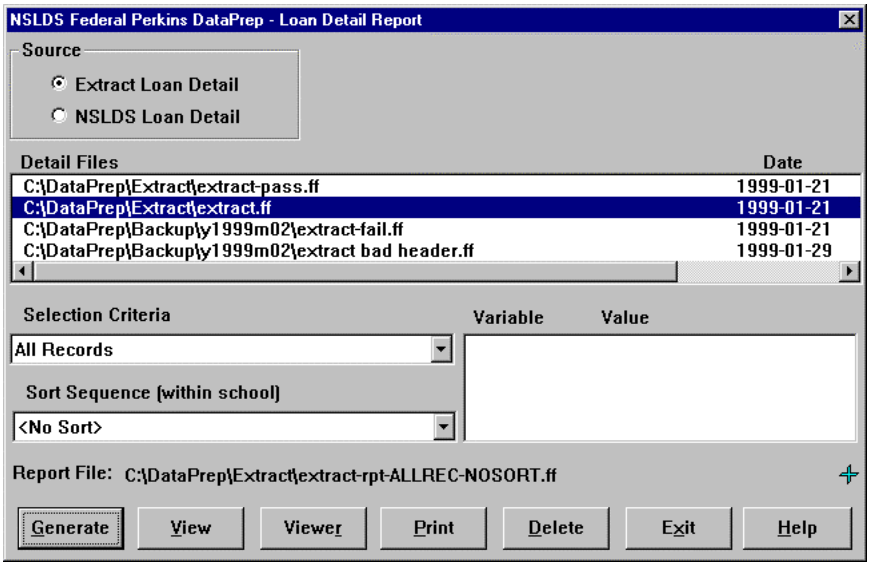


Figure 21, Loan Detail Reports Dialog Box

Changing the Extract File
If you view or review your Extract file, be certain you do not make any changes. The Extract file must be a validated, mirror image of your database.

You can scroll to the right to see the date and time the file was last modified and the number of bytes in the file. If you have several Extract files, this can help you determine which one you want to view or print.

Double-clicking the file (or selecting the button to the right of the file name, if there is a button) will create a File Information message box that will show you the same information: date and time the file was last modified and the number of bytes in the file.

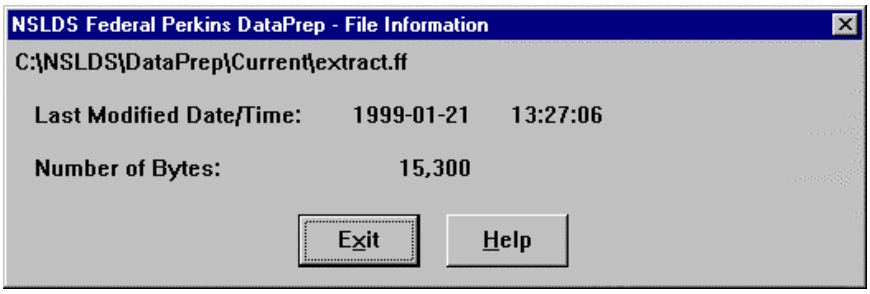


Figure 22, File Information Message Box

Sorting Options & Selection Criteria

Like the Extract Error and Load Error Reports, the Loan Detail Report, Extract file, and Submittal File can be sorted by a variety of parameters using a variety of selection criteria. You can also add, edit, or delete the selection criteria and sort parameters (see pages 3 to 13 for information about sort parameters and selection criteria). If you select No Sort, the report will be sorted in the same order as the file from which it was generated (i.e., the Database Extract file).

Select the appropriate Extract Detail file, choose the desired sort sequence, and generate the report. Once it is generated, you can either view or print the report. Refer to page **Error! Bookmark not defined.** for more information about selecting the viewer and print options.